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EXAMINER

CHAUDHRY, SAEED T

ART UNIT

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1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/803,868	Applicant(s) POLAK, ARIEH JEHUDA	
	Examiner Saeed T. Chaudhry	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 98-117 and 138-157 is/are pending in the application.
- 4a) Of the above claim(s) 98-117 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 138-157 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Applicant's amendments and remarks filed July 14, 2008 have been acknowledged by the examiner and entered. Claims 1-97 and 118-137 have been canceled and claims 98-117 and 138-157 are pending in this application. Of the above 98-117 has been withdrawn from consideration.

New ground of rejection **Claim Rejections - 35 USC § 112**

Claims 138-157 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 138 and 148 recite limitations “a relatively high pressure portion and a relatively low pressure portion”, it is not clear what are the limits for the low pressure portion and the high pressure portion. Further, the term "relatively" in claims 138 and 148 are a relative term which renders the claim indefinite. The term "relatively" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. There are no limitation that where the low pressure ends and high pressure starts.

Claims 138 and 148 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Claims 138 and 148 recite limitations, “a relatively high pressure portion and a relatively low pressure portion”, there is no support for these limitations in the originally filed specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 138-141, 144-146, 148-151 and 154-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terrell et al. in view of Natschke et al.

Terrell et al (6,578,828) disclose a method for cooling live stock. One or more cooling fans are connected to programmable oscillation means, enabling the herds man to program fan oscillation according to the location of the livestock. Water is injected under high pressure into the air stream of the fans to create a fog. The system is also programmable according to various environmental conditions, including temperature, humidity, and wind velocity. The pressure and volume of the injected water are programmable and may be adjusted by the controller according to the observed environmental conditions. The livestock cooling system may further comprise controller means for controlling the oscillation means and the

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means for injecting water droplets into the air stream. The controller means comprise, in part, a plurality of sensing devices positioned to sense environmental conditions and adapted to produce a signal in response to those conditions, a position indication device to determine the rotational position of the fan, where the position indication device is adapted to produce a signal in response to the rotational position.

A variety of different environmental conditions may be sensed by the sensing devices and inputted to the controller means, including temperature, humidity, wind velocity, intensity of sunlight, and the position of the sun with respect to the structure. FIGS. 1 and 2 show the major components of a typical fan 20 used in the disclosed system. Depending upon the particular application, a plurality of similar fans 20 may be used in the system. Each fan comprises a blade, not shown, enclosed within housing 22, a motor 24 attached to the housing 22 for rotating the blade, a grill 26 attached to the front of the housing 22, a mist ring 28 attached to the grill 26, nozzles 30 connected to the mist ring 28, a water supply line 32 for providing high pressure water to the nozzles 30, power cable 34 for providing electrical power to the motor 24, motor starter 36 for starting motor 24, and mounting bracket 38, which supports the weight of fan 20.

Water droplets are injected into the air stream 44 created by each fan 20. Water is delivered to the mist ring 28 of each fan 20 through a high pressure water line 32. Stainless steel or other corrosion resistant materials with acceptable pressures ratings are acceptable materials for construction of the mist ring 28. A plurality of nozzles 30 are attached to the mist ring 28. Nozzles 30 may be screwed into female connections welded to mist ring 28, or

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otherwise attached (see col. 3 line 65 through col. 6, line 46 and claims). The reference fails to disclose a step of generating mist at a low pressure portion and liquid under pressure of from 3 atm to 6 atm.

Natschke et al. (6,086,053) disclose method for cooling humans or animals by producing water mist with motor driven fan, wherein a mist stream having measurable and controllable upstream and downstream lateral dimensions centrally within the air stream symmetrically its central axis is generated in a low pressure portion.

In operation, the mister body 30 is mounted coaxially upon the guard grill 20 as illustrated in FIGS. 1 and 2, and the motor 12 is energized to cause air to flow through the guard grill 20 from the right to the left, FIG. 2, as produced by the rotation of the blades 18. The operator then adjusts the valve handle 66 to regulate the amount of water flowing into the mister body 30 through the water supply passage 46. As the passages 38 are thereby filled with water and the water forced through the nozzles 52, the spray pattern produced by the nozzles 52 is evenly projected throughout the airflow through the guard grill 20 wherein the entire airflow through the grill 20 will be receiving water particles which will travel with the air movement to provide the desired evaporative cooling. A flexible hose 62 is affixed to the fitting 50 and receives water from the valve 64, FIG. 2, attached to the pedestal 14. The valve 64 includes a control handle 66 whereby the amount of water flowing through the valve 64 can be closely regulated. The valve 64 receives water from a hose 68, such as a garden hose or the like, attached to a pressurized water source (see col. 3, line 37 through col. 4, line 4).

It would have been obvious at the time applicant invented the claimed process to include a step of generating mist at low pressure portion of an air stream as disclosed by Natschke et al

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in the process of Terrell et al for purpose of more control of the mist. Terrell et al fail to specify the velocity of air steam, water pressure and volume, diameter of the mist steam and distance from the point. Natschke et al disclose to supply water from a water hose, which is in the range of the claimed pressure. Further, one of ordinary skill in the art would manipulate the volume of water since Terrell et al reference discloses to decrease or increase the pump flow rate for controlling the pressure of the water. One of ordinary skill in the art would have control the air stream velocity by changing the speed of air generating fan, since it is known in the art to increase or decrease the air stream by increasing or decreasing the fan rotation. It is known in the art for generating air steam with different diameter size fans. Therefore, one of ordinary skill in the art would used fan which generate 7 feet air beam and provide the air stream up to 16 feed distance from the fan. One would use plurality of fans or a single fan to control the temperature of the animals or an animal. The reference disclose to oscillate the fan up to 270 degrees. Therefore, one of ordinary skill in the art would restrict the fan movement to desire rotation to reduce the cover area for mist spraying. One of ordinary skill in the art would have intermittently supply the water to the nozzle since Terrell et al disclose to control the water pressure and volume by controlling the pump speed and when the humidity of the environment do not require to have water mist.

Claims 142-143, 147, 152-153 and 157 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terrell et al in view of Natschke et al. as applied to claims 138 and 148 above, and further in view of Roach et al.

Terrell et al were discussed supra. However, the reference fails to disclose second axis of rotating air stream.

Roach et al (6,257,501) disclose a method of spraying mist of water for cooling effect. An electric fan has horizontal axis which swing in up and down position with respect to the floor (see col. 2, lines 42-52).

It would have been obvious at the time applicant invented the claimed process to incorporate horizontal axis as disclosed by Roach et al into the process of Terrell et al to manipulate the air stream direction from up or down position to cover all the areas. Since the axis disclosed by Roach et al is horizontal. Therefore, it would have been obvious to change the air stream direction by gravity.

Applicant's arguments with respect to claims 138-157 have been considered but are deemed to be moot in view of the new grounds of rejection.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, THIS ACTION IS MADE FINAL. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (571) 272-1298. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Barr, can be reached on (571)-272-1414. The fax phone number for non-final is (703)-872-9306.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Saeed T. Chaudhry

Patent Examiner

/Michael Barr/

Supervisory Patent Examiner, Art Unit 1792